

APPENDIX B
ESSENTIAL FISH HABITAT EVALUATION

Essential Fish Habitat (EFH)- On October 11, 1996, the Sustainable Fisheries Act (Public Law 104-297) became law which, among other things, amended the habitat provisions of the Magnuson Act. The re-named Magnuson-Stevens Act calls for direct action to stop or reverse the continued loss of fish habitats. Toward this end, Congress mandated the identification of habitats essential to managed species and measures to conserve and enhance this habitat. The Act requires federal agencies to consult with the Secretary of Commerce regarding any activity, or proposed activity, authorized, funded, or undertaken by the agency that may adversely affect EFH.

For the purposes of this environmental assessment, essential fish habitat means those waters and substrate necessary for salmon for spawning, breeding, feeding, or growth to maturity (Magnuson-Stevens Act, 16 U.S.C. 1801 et seq). For the purpose of interpreting the definition of essential fish habitat: Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by salmon and may include aquatic areas historically used by salmon where appropriate; substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and spawning, breeding, feeding, or growth to maturity covers a species' full life cycle.

The National Marine Fisheries Act recognizes waters cataloged under AS 16.05.870 (Waters Important for the Spawning, Rearing, or Migration of Anadromous Fishes) as essential fish habitat (BLM comm.; National Marine Fisheries Service, Anch, AK; 28 Mar 2000). For purposes of this proposed action, Fish and Judy Creeks and the Ikpikpuk, Chipp, and Meade Rivers meet the above outlined criteria. Fish and Judy Creeks are identified as stream numbers 330-00-10840 and 330-00-10840-2043 respectively in the catalog. Chum and pink salmon are listed in the catalog as using these two creeks for migration. Pink salmon are also listed as spawning and rearing in the Ikpikpuk River (30-00-10900) and spawning in the Chipp River (330-00-10915). Chum salmon are listed as spawning in the Meade River (330-00-10920). No other salmon streams in the area of proposed use are noted in the catalog (ADF&G, 1999). Overall, Pacific salmon species are not abundant in the waters of the NPR-A (Craig, 1989). Small runs of pink and chum salmon occur in several rivers and chinook salmon occur infrequently.

Estuarine habitat that supports young salmon as they exit freshwater for life in the sea is also EFH . The estuarine zone is used primarily by juvenile salmon smolt during physiological adaptation to the saltwater environment from the freshwater. This outmigration takes place from the time the ice moves out through August. Feeding during this time, especially the first few days, is thought to be especially critical to survival. Thus, prey and prey habitat are an important part of this particular habitat. Once they enter the ocean, pink and chum salmon hug the shore. Pink salmon spend the first few weeks in water only a few centimeters deep; thus, prey living in the gravel substrate (benthic insects and zooplankton) are their food source. Chum salmon use intertidal areas (i.e., estuarine waters in the Beaufort Sea) for months before migrating to the outside waters. They move offshore from July to September.

Proposed Action and Effects

The purpose of the proposed action (EA: AK-023-03-008) is to permit the applicant, ConocoPhillips Alaska Inc. (CPAI), to access and drill the Puviaq prospect area, as part of a multi-year winter oil and gas exploration program in the National Petroleum Reserve - Alaska (NPR-A). Results of this program will help determine if any of the drilled prospects contain economically recoverable oil and gas.

CPAI proposes several optional routes for access. They will build, maintain, and use an annual winter ice road system (on and/or off shore) and/or use overland trails, and ice airstrips for the access portion of the exploration process. The proposed action also includes development of necessary ice pads for drilling exploration wells and set up of camp infrastructure to support drilling operations. Demobilization will occur by the end of the winter tundra travel season.

Potential effects to the salmon resources and their habitat in Fish and Judy Creek and the Ikpiukuk, Chipp, and Meade Rivers drainages include direct and indirect impacts related to water withdrawal for building of ice roads and pads, ice road construction at stream crossings, and fuel transport. Impacts to estuarine habitat are related to water withdrawal for building of ice roads. It is expected that any near shore ice roads would be constructed over areas naturally frozen to the substrate. Resultant impacts to habitat would be minimal. The impacts are mitigated through management plan guidance, stipulations, and industry practice as outlined below. Detailed discussions of impacts and mitigation are found in the Environmental Assessment (EA).

The Northeast National Petroleum Reserve - Alaska Final Integrated Activity Plan/Environmental Impact Statement (NE IAP/EIS, 1998) and Record of Decision (ROD, 1998) and several subsequent Environmental Assessments (see this EA for a list) provide management guidance for BLM. The NE IAP recognizes the fisheries values in the Judy and Fish Creek drainages through the creation of fish habitat Land Use Emphasis Areas (LUEA). Stipulations in the IAP/EIS related to the LUEA's provide that there will be no permanent facilities except for case-by-case essential transportation crossings within three miles of Fish Creek, downstream from the east boundary of Section 31, T11N, R1E and within a 1/2 mile of the creek upstream of this point. Judy Creek has a 1/2 mile setback relative to permanent facilities construction. General stipulations found in the NE EIS and subsequent exploration EA's also provide protection by prohibiting water withdrawal from rivers and streams during winter and clearing of willows along riparian zones. Proposed stream crossings take advantage of areas with low relief banks that naturally freeze to the bottom to minimize impacts to habitat and fish resources. Limits on water withdrawal from fish bearing lakes provide protection to overwintering fish. Fuel handling and storage stipulations found in the NE IAP/EIS minimize the potential for habitat contamination. A Northwest IAP/EIS is currently being written that will address management prescriptions for land west of the Ikpiukuk River (includes the Ikpiukuk, Chipp, and Meade River drainages). The applicant in this action proposes to withdraw water and locate crossings for the Northwest IAP/EIS managed lands in a manner that is consistent with management guidance found in the Northeast EIS/IAP.

Cumulative impacts for this proposed action and past, present and future exploratory actions are discussed in the body of this EA. Additional impacts to salmon and their habitat from this action are expected to be minor due to low numbers of salmon utilizing the systems, minimal disturbance to their habitat (i.e. stream crossings at natural freeze down sites), low potential for fuel spills, adequate protections provided by stipulations found in the 1998 IAP/EIS and ROD, and industry proposed procedures.

EFH Finding: based on the measures taken and in place to protect the salmon resources and habitat of Judy and Fish Creeks, the Ikpikpuk, Chipp, and Meade Rivers, and affected estuarine habitat, the proposed action is assigned the EFH determination: *May affect, not likely to adversely affect*, and no further EFH consultation is required.

References

Craig, P.C. 1989. An Introduction to Anadromous Fishes in the Alaskan Arctic. Biological Papers of the University of Alaska 24:27-54.

State of Alaska, Alaska Department of Fish and Game. 1999. An Atlas to the Catalog of Waters Important for Spawning, Rearing, or Migration of Anadromous Fishes, Resource Management Region V. Alaska, Department of Fish and Game, Habitat and Restoration Division.

USDOI, BLM and MMS. 1998. Northeast NPR-A Final Integrated Activity Plan/Environmental Impact Statement. Anchorage, AK: USDOI, BLM and MMS.

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